

Spruce Creek AITR Integrated Project Modules – All Subject Areas

	9 th	10 th	11 th	12 th
Hex 1 9/20,2010 to 9/24/2010	Module: Survival Skills Project: Presentation to 8 th Grade Students on logic & critical thinking, research skills, business etiquette, manners and teamwork.	Module: Media and Messages Project: Create an Ad Campaign for the Academy. Each team prepare a campaign including multimedia, print material, business card, website, t-shirt and logo. To be presented to the local business community	Module: Planning for Business Success Project: Create a Business Plan for Robotics, NEST, or the Academy. Each team will prepare a business plan – presentation must include a bound report. To be presented to the chamber of commerce.	Module: Calculating your Future Project: Create a Documentary based on a particular scenario. Deliverable should include a monthly budget over one year.
Hex 2 11/1/2010 to 11/5/2010	Module: Programming 3-D Animations. Project: Short 3-D animated story.	Module: People At Work Project: To create a website showing the historical evolution of the workplace. During this unit students will maintain a blog (will the blog be part of the deliverable?)	Module: Planning for Efficiency Project: To plan and promote a Lan Party Fundraiser, focusing on efficiency of the process. The plan will be presented to the gaming board – the most efficient plan will be chosen and executed.	Module: Wealth of Nations Project: Choose a country in which to build a water treatment facility – and develop a prototype for water treatment. The winning project will be presented to the MIT InvenTeam competition.
Hex 3 12/13/2010 to 12/17/2010	Module: From Concept to Consumer Project: Create a product design for a Bicycle For The Future. Build/ fabricate the prototype for the presentation. Deliverable will include engineering notebook.	Module: Reverse Engineering Project: Reverse engineer the BP oil well and determine how it could have been better engineered for safety and reliability. Deliverable will include a prototype and an engineering log.	Module: From Data To Knowledge Project: Create a database (write the software) to solve a geographic problem.	Module: Markets Without Borders Project: Create a handbook for travelers 18 – 25 years old that is specific to a country (Panama). Handbook to include facts about country, transportation, currency conversions. The handbook will then be modified into a cell phone app.
Hex 4 2/7/2011 to 2/11/2011	Module: Web Design Project: Create a website giving career information for a chosen field.	Module: Different By Design Project: Redesign a product to make it more accessible for the handicapped. Students may choose to make a prototype or a technical drawing for their presentation. Deliverable should include an engineering log to show their process.	Module: Closing the Environmental Loop Project: Change process of garbage removal Spruce Creek to make it more environmentally friendly. Present on their design/ redesign process and include an engineering log. Perhaps use a system flowchart (or product lifecycle) as a deliverable.	Module: Global Citizens Project: Students choose their own business from the list of business partners and present on how the company can become a better global citizen (possibly considering that the business will be expanding into a different country). Deliverable will include a bound report.

Hex 5 4/28/2011 to 5/1/2011	Module: Gotcha Network Project: Create a prototype smoke alarm project for student restrooms that notifies office which restroom student is smoking in.	Module: We All Run On Energy Project: Create a lesson plan to teach a group of 7 th /8 th graders about energy and alternative energy solutions. Deliverable includes the science notebook and lesson plan. Lesson to be presented to students.	Module: The Nuclear Revolution Project: Students participate in a debate over whether or not to build additional nuclear reactors as a means to meet the increasing energy needs of our country.	Module: Ensuring Quality Project: Write a program to analyze statistical data (calculate and explain the Z-Score) in order to improve the quality of some school-based system.
Hex 6 5/16/2011 to 5/20/2011	Module: Energy from the Sun – Biomass – Bio-fuel generator Project: Create a biomass stove for assigned country.	Module: Is Hydrogen A Solution? Project: To make a recommendation to NuEnergy, a venture capital firm, on which energy company to invest in; then to create a hydrogen powered vehicle specific to the specialty of the company they recommend.	Module: Careers and Community Project: Organize and execute a career fair.	Module: Energy for the Future Project: To make a recommendation to Volusia County School District on methods to reduce lighting costs.